

**Amendments to the Claims:**

This list of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-4 (canceled)

Claim 5 (withdrawn)      Plant food, comprising a luciferin or a luciferase.

Claim 6 (withdrawn)      The plant food of claim 5 that is a fertilizer.

Claim 7 (withdrawn)      The plant food of claim 5 that comprises a plant growth promoter.

Claim 8 (withdrawn)      A method for producing a glowing plant, comprising treating a transgenic plant that comprises a luciferin or a luciferase with a plant food that comprises a luciferase, if the plant comprises luciferin, or a luciferin, if the plant comprises a luciferase, wherein the glowing plant is a novelty item.

Claim 9 (withdrawn)      The method of claim 8, wherein the plant is an ornamental plant.

Claim 10 (withdrawn)      The method of claim 8, wherein the plant food is applied to the plant or introduced into the soil.

Claim 11 (new)      A transgenic bioluminescent plant that expresses at least one marine derived luciferase, luciferin or fluorescent protein of a bioluminescent generating system, wherein the reaction of at least one other component of the bioluminescent generating system with the at least one marine derived luciferase, luciferin or fluorescent protein causes the transgenic plant to illuminate.

Claim 12 (new)      The bioluminescent plant of claim 11, wherein the bioluminescent plant emits sufficient illumination to be visible by the unassisted eye.

Claim 13 (new)      The bioluminescent plant of claim 11, wherein the transgenic bioluminescent plant is a living plant.

Claim 14 (new)      The bioluminescent plant of claim 11, wherein the at least one marine derived luciferase, luciferin or fluorescent protein is derived from a marine bacteria or a marine organism.

Claim 15 (new)      The bioluminescent plant of claim 11, wherein at least one marine derived luciferase, luciferin or fluorescent protein is derived from at least one of: the *Vibrio* species, arthropods, mollusks, echinoderms or chordates.

Claim 16 (new)      A combination, comprising:  
a living transgenic bioluminescent plant that expresses at least one marine derived luciferase, luciferin or fluorescent protein of a bioluminescent generating system;  
and

plant food that comprises at least one other component of the bioluminescent system, wherein supply of the plant food to the transgenic plant causes the transgenic plant to illuminate.

Claim 17 (new)      The combination of claim 16, wherein the transgenic plant emits sufficient illumination to be visible by the unassisted eye.

Claim 18 (new)      The combination of claim 16, wherein the at least one marine derived luciferase, luciferin or fluorescent protein is derived from a marine bacteria or a marine organism.

Claim 19 (new)      The combination of claim 16, wherein at least one marine derived luciferase, luciferin or fluorescent protein is derived from at least one of: the *Vibrio* species, arthropods, coelenterates, mollusks, echinoderms or chordates.

Claim 20 (new)      The combination of claim 16, wherein the plant food is a fertilizer.

Claim 21 (new)      A method for producing a glowing plant, comprising:  
providing a living transgenic bioluminescent plant that expresses at least one marine derived luciferin, luciferase or fluorescent protein of a bioluminescent generating system;  
providing plant food that comprises at least one other component of the bioluminescent system; and

contacting the transgenic bioluminescent plant with the plant food to cause the transgenic bioluminescent plant to illuminate.

Claim 22 (new)      The method of claim 21, wherein the transgenic bioluminescent plant emits sufficient illumination to be visible by the unassisted eye once contacted by the plant food.

Claim 23 (new)      The method of claim 22, wherein the at least one marine derived luciferase, luciferin or fluorescent protein is derived from a marine bacteria or marine organism.

Claim 24 (new)      The method of claim 22, wherein the components of a bioluminescent system are derived from at least one of: the *Vibrio* species, arthropods, mollusks, echinoderms or chordates.

Claim 25 (new)      The method of claim 22, wherein the plant food is a fertilizer.

Claim 26 (new)      The method of claim 22, wherein contacting the transgenic bioluminescent plant with the plant food comprises contacting roots of the transgenic bioluminescent plant.

Claim 27 (new)      The method of claim 22, wherein contacting the transgenic bioluminescent plant with the plant food comprises contacting foliage of the transgenic bioluminescent plant.